



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/US00/12061 (22) International Filing Date: 3 May 2000 (03.05.00) (30) Priority Data: 60/133,040 7 May 1999 (07.05.99) US (71) Applicants (for all designated States except US): E. I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). PIONEER HI-BRED INTERNATIONAL, INC. [US/US]; 7100 N.W. 62nd Avenue, Johnston, IA 50131 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): OROZCO, Emil, M., Jr. [US/US]; 2 Dutton Farm Lane, West Grove, PA 19390 (US). WENG, Zude [CN/US]; Apartment 1B, 9122 Lincoln Drive, Des Plaines, IL 60016 (US). BRUCE, Wesley, B. [US/US]; 4625 96th Street, Des Moines, IA 50322 (US). CAHOON, Rebecca, E. [US/US]; 2331 West 18th Street, Wilmington, DE 19806 (US). TAO, Yong [CN/US]; 101-8 Thorn lane, Newark, DE 19711 (US). (74) Agent: GEIGER, Kathleen, W.; E.I. du Pont de Nemours and Company, Legal Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).			(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  Published Without international search report and to be republished upon receipt of that report.

(54) Title: AUXIN TRANSPORT PROTEINS

SEQ ID NO:14  
SEQ ID NO:30  
SEQ ID NO:34  
SEQ ID NO:38  
SEQ ID NO:43  
SEQ ID NO:44\*\*\*\*\*  
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SEQ ID NO:34  
SEQ ID NO:38  
SEQ ID NO:43  
SEQ ID NO:44\*\*\*\*\*  
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61 120SEQ ID NO:14  
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SEQ ID NO:34  
SEQ ID NO:38  
SEQ ID NO:43  
SEQ ID NO:44\*\*\*\*\*  
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121 180

## (57) Abstract

This invention relates to an isolated nucleic acid fragment encoding an auxin transport protein. The invention also relates to the construction of a chimeric gene encoding all or a substantial portion of the auxin transport protein, in sense or antisense orientation, wherein expression of the chimeric gene results in production of altered levels of the auxin transport protein in a transformed host cell. The present invention also relates to methods using the auxin transport protein in modulating root development, and in discovering compounds with potential herbicidal activity.